TACOBEL.010A PATENT

#18 Reply Brief 7-7-01

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Winfree et al.	) Group Art Unit 3652
Appl. No.	:	09/026,824	)
Filed	:	February 20, 1998	)
For	:	RESTAURANT FOOD PREPARATION LINE	)
Examiner	:	F. J. Bartuska	)

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on

June 21, 2001
(Date)

Robert J. Roby, Reg. No. 44,304

BOARD OF PATENT APPEALS AND INTERFERENCES

APPELLANT'S REPLY BRIEF PURSUANT TO 37 C.F.R. § 1.193(b)(1)

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In response to the Examiner's Answer, Appellant hereby requests entry of the following comments. In addition, Appellant is enclosing a copy of any cases newly cited as Appendix A.

I. APPELLANT AGREES WITH THE EXAMINER'S STATEMENT OF CLAIMS STATUS

Appellant has reviewed the Examiner's statement of the Status of Claims and agrees with the Examiner's changes.

II. APPELLANT AGREES WITH THE EXAMINER'S CHANGE TO THE STATEMENT OF ISSUES

Appellant has reviewed the Examiner's statement of the Issues and agrees with the Examiner's change.

III. APPELLANT AGREES WITH THE EXAMINER'S CHANGE TO THE CLAIMS APPEALED

Appellant has reviewed the Examiner's statement of the Claims Appealed and agrees with the Examiner's change.

IV. GROUP 1 – PATENTABILITY IS NOT PREMISED UPON A STATEMENT OF INTENDED USE

The claims of Group 1 recite several limitations not disclosed by either Tuhro et al. or Conlan et al. Appellant agrees with the general proposition that a recitation of intended use is insufficient to define over prior art. Appellant, however, disagrees that "a generally open package storage compartment" is a statement of intended use and submits that the adjectives are positive limitations on the type of compartment.

Nevertheless, the claims are patentable without settling the dispute over this issue. For instance, the Examiner asserts that Tuhro et al. showed an open storage compartment 30 in the third section. Tuhro et al. actually shows a shelf 30 that is positioned on an end of the third section that adjoins the second section; however, the relevant limitations of Claim 1 recite, among other things, that the "generally open package storage compartment" is "located near an end of the third section, which end is distal of the second section." Tuhro et al. did not teach or suggest locating an open storage compartment in this position. In addition, Conlan et al. also did not teach or suggest these same limitations. As Appellant stated in the Appeal Brief, the present invention requires certain components to be located in certain strategic locations to allow rapid assembly of various quick-service food items that comprise a single order at a quick-service food restaurant. Thus, the applied combination failed to teach or suggest at least these limitations and a *prima facie* case of obviousness has not been established with respect to the claims of Group 1.

V. GROUP 2 – THE DRAWINGS OF TUHRO ET AL. DO NOT TEACH RELATIVE SIZES

The applied references do not teach that certain components are within six feet of each other. In response to this statement, the Examiner has incorrectly argued that "each of the sections of Tuhro et al. is about twice as long as [it is] high, so ... Tuhro et al. would place all the elements on the order of six feet apart." It is well established that, absent any written description in the specification of quantitative values, arguments based on measurement of a drawing are of little value. See *In re Chitayat*, 408 F.2d 475, 161 U.S.P.Q. 224 (CCPA 1969) (stating that, without numerical teaching in the reference, the reference's drawings do not show dimensions).

Patent drawings are not to scale and are not working drawings; therefore, any arguments premised on dimensional teachings provided only in the drawings are flawed. For at least this reason, the applied references fail to teach or suggest the dimensional limitations recited by the claims of Group 2 and a *prima facie* case of obviousness has not been established with respect to the claims of Group 2.

VI. GROUPS 2 AND 3 – THE DIMENSIONAL LIMITATIONS ARE NOT A MERE DESIGN CHOICE

With respect to the claims of both Group 2 and Group 3, the Examiner argues that the only difference between the prior art and the claims is a recitation of relative dimensions. The Examiner cites *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), for the proposition that "where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently that the prior art device, the claimed device is not patentably distinct from the prior art device." *Gardner*, however, is inapposite with respect to the claims being appealed.

In *Gardner*, the Federal Circuit was reviewing whether a trial court correctly held that the claimed invention was obvious over prior art. The Federal Circuit was reviewing a legal conclusion based on a number of factual findings. The Federal Circuit inferred from the factual findings that the trial court found the claimed device was not in any significant respect different from similar devices available in the prior art because the structural differences over the prior art did not necessarily result in differences in performance over the prior art. *Id.* at 1346. Thus, the Federal Circuit held that those differences expressed as numerical limitations did not distinguish over the prior art and that those numerical limitations were no more than "window dressing." *Id.*

To the contrary, the limitations at hand are not mere "window dressing;" rather, the size limitations in the present application result in drastically improved performance over the prior art. The size limitations do distinguish the present invention from the prior art and the size limitations have actual significance in the operation of the claimed invention of Groups 2 and 3. *Cf. Gardner* at 1346 (quoting trial court as stating "[s]urely, the patent law does not attach uniqueness to dimensional claims that have no significance in the operation of the claimed invention."). The Examiner's argument is akin to a "mere design choice" rejection. It is well

settled law in this regard, however, that, if a claim limitation solves a particular problem in the art, that claim limitation is not a mere design choice. *See In re Chu*, 66 F.3d 292, 298, 36 U.S.P.Q.2d 1089 (Fed. Cir. 1995). In this case, by spacing the components or stations with the recited distances, the number of workers can be decreased while the speed of service in the restaurant is improved. *See Application*, at page 18, lines 21-23. Thus, the recited dimensional limitations are more than "window dressings" and should be given patentable weight. With the recited dimensional limitations given patentable weight, the claims of Groups 2 and 3 are not *prima facie* obvious because the applied references do not teach or suggest the recited dimensional limitations.

VII. GROUP 3 – THE SPACING OF THE STATIONS IS PATENTABLE

The Examiner states that the number of workers around the device of Group 3 is only a statement of intended use. This is incorrect. The statement regarding the workers is provided simply to illustrate the spacing of the first station from the second station: "the first station and the second station being arranged so as to enable a first worker positioned at the first station to directly pass the food product to a second worker positioned at the second station." Thus, this is not a statement of intended use; rather, this is a limitation on the spacing between the first station and the second station. The spacing is such that two workers positioned at the two stations can pass food product to each other without requiring an intervening worker. As discussed above, this spacing is not a mere design choice and has a direct effect on the functionality of the recited invention. Thus, this spacing is an actual limitation that must have been taught or suggestion by the prior art for a *prima facie* case of obviousness to exist. Because such a teaching or suggestion was not contained within the prior art, a *prima facie* case of obviousness has not been established.

VIII. GROUP 4 – THE APPLIED REFERENCES DO NOT TEACH THE RECITED FOOD INGREDIENT DISPENSER OR ITS PLACEMENT

The Examiner has ignored Appellant's arguments that Conlan et al. merely taught a self-service beverage dispenser and that Conlan et al. did not teach a food assembly person operated food ingredient dispenser that is positioned at an inside corner or on at least one of the first and second counter sections within an arm's reach of the first station. The applied references do not

teach or suggest this construction. Furthermore, a teaching of modular construction and design flexibility does not equate to a teaching or suggestion of a specifically recited placement. In other words, even if "one of ordinary skill in the art would place the elements in the proper sequence to provide an efficient assembly line process of preparing the food to be served," one of ordinary skill in the art would not necessarily arrive at the recited placement and selection of components without relying upon Appellant's own disclosure. Thus, the argument made by the Examiner appears to be improperly premised upon hindsight. Without a proper motivation to combine the references, and to modify the references that are being combined, no *prima facie* case of obviousness has been established.

IX. CONCLUSION

For the reasons discussed above, a *prima facie* case of obviousness simply has not been established with respect to any of the rejected claims. Without more, the rejected claims are allowable over the applied combinations. Therefore, Appellant respectfully requests that the rejection of Claims 1-3, 6, 7, 10, 11, 17, 18, 22-25, 44-47 and 55-63 be overturned.

Respectfully submitted,
KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: June 21, 2001

By: _____
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That the front-feed throat opening means is operated indirectly by the motor in appellee's construction is clear. In each cycle of operation of the machine the motor tightens the spring, storing its energy for use in the next cycle of operation of the machine.

We find nothing in said counts requiring the front-feed throat opening means to be operated directly by the motor, and we are not at liberty to read the word "directly" before the word "operable" in said counts.

Appellant contends that the reasoning applied in Christian applies here and that the count language in issue is met by rod 398 indirectly winding spring 365 during its clockwise movement.

At first glance, appellant's argument appears impressive; however, it overlooks the fact that the language involved here is narrower than that in Christian and specifically requires that the drive means operate in its *return stroke* to restore the actuator. At best, charging of spring 365 here can be characterized only as resulting in the drive means operating in its *forward stroke* to later permit restoration of the actuator.

We have considered fully all arguments of the parties; however, we think it apparent from the foregoing that Gubelmann has not discharged the burden which the law imposes on one in his position. Accordingly, the decision of the board is *affirmed*.

Court of Customs and Patent Appeals

In re CHITAYAT

No. 8125 Decided Apr. 3, 1969

PATENTS

1. Drawings—In general (§ 34.1)

Arguments based on mere measurement of patent drawings are of little value in absence of description in specification of relative dimensions.—In re Chitayat (CCPA) 161 USPQ 224.

Particular patents—Image Enhancement

Chitayat, Image Enhancement Means, claims 7 to 10 of application refused.—In re Chitayat (CCPA) 161 USPQ 224.

Appeal from Board of Appeals of the Patent Office.

Application for patent of Anwar K. Chitayat, Serial No. 266,730, filed Mar. 20, 1963; Patent Office Group 250. From decision rejecting claims 7 to 10, applicant appeals. Affirmed.

JOHN C. VASSIL (THOMAS P. DOWLING of counsel) both of New York, N. Y., for appellant.

JOSEPH SCHIMMEL (JERE W. SEARS of counsel) for Commissioner of Patents.

Before WORLEY, Chief Judge, and RICH, ALMOND, and BALDWIN, Associate Judges.

BALDWIN, Judge.

This appeal is from the Patent Office Board of Appeals decision affirming the rejection of all the claims of appellant's application[1] under 35 U.S.C. 103.

THE INVENTION

Appellant's invention relates to the field of fiber optics wherein optical images are transmitted along flexible bundles of light-transmitting fibers. Appellant acknowledges that it has previously been known to impart a cyclic displacement of the image relative to the fibers to ensure that all parts of the image are presented at one time or another to intact fibers for transmission along the bundle, thus avoiding degradation of the received image due to elements of the image being lost in the spaces between adjacent fibers or along broken fibers. Appellant's invention resides in providing a displacement of the image which amounts to at least one hundred fiber diameters to cause an alleged improvement in the quality of the transmitted image.

Claim 7, which is reproduced as follows, is typical of the claims on appeal, and the patentability of it is determinative of all issues in this appeal.

7. A coherent image transmitting system comprising an optical fibre bundle having physically separate variably oriented ends and transmission improving means for improving the effective resolution of the transmitted image and eliminating the effect of broken fibres independent of the relative orientation of said ends comprising image displacing means at each of said ends for imparting a displacement of the respective image, said displacing means being configured whereby the driving thereof causes elements of said image to be displaced

[1] Serial No. 266,730, filed March 20, 1963, for "Image Enhancement Means," allegedly a continuation-in-part of serial No. 116,179, filed June 9, 1961.

by at least one hundred fibre diameters for eliminating the effect of defective fibers without causing excessive transmission losses, and control means for synchronizing the operation of said displacing means with respect to both speed and phase relationship whereby said image displacements are effectively nullified, said control means comprising a plurality of separate drive means, one couple to each of the image displacing means at said fibre bundle ends for cyclically driving said displacing means, means for synchronizing the speed of each of said drive means and means for fixing the phase of each of said drive means.

THE REFERENCES

Frank [2] discloses a fiber-optic, light transmitting system which, in its Figure 4 embodiment, includes generally the same structural features for displacing the image relative to the fibers as appellant employs. Frank's specification does not, however, give numerical values for the image displacement in terms of multiples of fiber diameters or the equivalent.

Kapany [3] shows another fiber optic system of the same general type as Frank involving image displacement, and refers explicitly to the magnitude of displacement, stating:

> By experimentation, it has been found that an amplitude of four or five diameters resulted in considerable gain in resolution for the transmission of images, amplitudes greater than four diameters had no appreciable increase in resolution, and amplitudes of less than four resulted in a proportionate lessening of the resolution which could be measured. * * *

Kapany illustrates the effect of his range of image displacement on quality by the following figures:

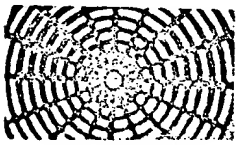


FIG. 5

FIG. 7

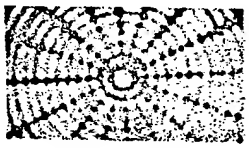


FIG. 9

Figure 5 shows a target image to be transmitted, Figure 7 shows the same image as received without image displacement and Figure 9 shows the received image with image displacement in the range taught by Kapany.

Jones [4] and Fayerweather [5] both show the use of circuit-controlled separate synchronous motors which operate two rotating optical elements in both speed and phase synchronism. Figure 1 of the Jones patent shows two motion picture projectors driven by synchros 29 and 30 with a phase control at 32. Fayerweather discloses two rotating shutters driven by synchronous motors which are connected to a common alternating current source.

THE REJECTION

Claims 7-10 are rejected under 35 U.S.C. 103 as unpatentable over Frank [illegible] Kapany. The examiner contended that Frank disclosed the broad combination claimed by appellant and that:

> [I]t is obvious that one skilled in the art could provide a displacement of 100 [sic] at least 100 fiber diameters in the Frank device without producing any unexpected results. * * *

In an additional rejection of claims 9 and 10 under 35 U.S.C. 103 on Frank and Kapany (as applied above) further in view of either Jones or Fayerweather, the examiner stated:

> [I]t is considered that it would be obvious to use synchronous motors such as shown in either Fayerweather or Jones to drive the image shifters in the Frank device since the results would be entirely expected.

Affirming the examiner, the board stated:

> In addition, it seems to us that a person ordinarily skilled in the art would examine a cable to ascertain the quality thereof. If a bundle of thirty-six fibers were found to be broken, as in appellant's exhibit, it would be obvious that merely displacing the image by four fiber diameters would not effect any improve-

[4] U. S. Patent No. 3,110,762, issued November 12, 1963.

[5] U. S. Patent No. 2,843,005, issued July [illegible]

[2] U. S. Patent No. 2,166,947, issued July [illegible]

[3] U. S. Patent No. 3,016,785, issued January 16, 1962.

ment. Thus, it is obvious, statistically, that the image displacement should considerably exceed the size of the break. This being so, we find nothing critical and unobvious in the use of one hundred fiber diameters.

OPINION

On appeal, the solicitor refers to measurements made by him from the drawings of Frank of the relative dimensions of the fibers and image displacement, and then by process of arithmetic deduces that Frank shows a relative image displacement of 45 fiber diameters. Thereafter the solicitor argues:

> There is of record no evidence that a nutation circle circumference of 100 fibre diameters will produce a resolution differing more than in degree from the resolution produced by a nutation circle circumference of 45 fibre diameters.

Appellant in refutation of the solicitor's argument, finds the relative dimensions from the drawings to be different with a corresponding reduction in the relative displacement value.

[1] In view of the absence in Frank's specification of any written description of the quantitative value of the image displacement relative to fiber diameter, the arguments based on mere measurement of the drawings appear to us of little value. As we said when faced with an analogous situation in In re Wilson et al., 50 CCPA 827, 312 F.2d 449, 136 USPQ 188, 192:

> Both the Patent Office and appellants have engaged in what appears to us to be a somewhat futile attempt to measure the thickness of the Weisse coil strip and the Weisse lap spacing in their respective attempts to show whether the particular lap spacing recitations included in the claims now before us are or are not distinguishable from those disclosed by Weisse. Appellants, for example, conclude, in typically precise fashion, that the Weisse lap spacing is "about 30% to 60% greater than applicants' top spacing." Patent drawings are not working drawings and this argument is predicated, moreover, on a greatly enlarged section of a small drawing obviously never intended to show the dimensions of anything. We do not find it persuasive.

Thus, in the absence of explicit numerical teaching in Frank relating image displacement to fiber diameter, we turn to the Kapany patent to see whether the values there stated would make the values used by appellant obvious. On this point appellant draws particular attention to the latter part of the previously quoted portion of Kapany that "* * * amplitudes greater than four diameters had no appreciable increase in resolution * * *." This statement, appellant argues, is a teaching away from use of displacements in excess of four diameters which would make it unobvious to operate at appellant's claimed displacement of at least one hundred fiber diameters.

However, the examiner in his Answer, takes the position that Kapany does not affirmatively teach a *decline* in quality above four diameters but merely infers that a law of diminishing returns may operate after the initial improvement, if displacement is thereafter progressively increased.[6]

This position of the examiner seems to be supported by consideration of the previously reproduced Figures 5, 7 and 9 of Kapany which make it clear that the problem of improving image quality is solved in major part just by moving from a static condition to even the initial, relatively low, amplitude of displacement disclosed by Kapany. Adopting therefore the examiner's position that Kapany does not affirmatively teach away from amplitudes greater than four, it appears that appellant's range of one hundred fiber diameters is a change in degree from the Kapany range.

A review of the record here, however, fails to reveal any results that would not be expected in view of the Kapany teachings. The record includes two exhibits, A and B, showing images of a page of a tool catalog received along the same damaged fiber optic cable under conditions of *no* image displacement and of displacement of "about 200 diameters." Although the improvement in picture quality is quite dramatic, the exhibits are less than convincing because of a failure to provide a com-

[6] For example, the examiner's Answer states:

> Kapany merely states that there is no material improvement in the image when the displacement goes beyond four or five fiber diameters. Statistically the Kapany teaching is correct because if there is one broken fiber in a group of four an elemental image area the size of the fiber end would be transmitted approximately 75% of the time. At a displacement of five fiber diameters such area would be transmitted approximately 80% of the time. In other words the improvement is rapid (0 to 75%) up to a displacement of four fiber diameters, but beyond four diameters the improvement tapers off rapidly.

parison with the prior art. First, the comparison is with no displacement at all, and a major part of the improvement may be the result of having at least some lower degree of displacement as taught by Kapany. Second, the improved image of the second exhibit was obtained at twice the claimed lower limit of one hundred diameters. The record thus fails to show any unexpected improvement in image quality over that which would be expected in view of the cited references at a minimum displacement of one hundred fiber diameters.

From the foregoing, we believe the rejection of the claims under 35 U.S.C. 103 as being obvious in view of the cited prior art was correct, and the decision of the board is therefore *affirmed.*

Court of Customs and Patent Appeals

MARRIOTT-HOT SHOPPES, INC. v. BURGER FAMILY, INC.

No. 8129 Decided Apr. 3, 1969

TRADEMARKS

1. Identity and similarity—Words—Not similar (§ 67.4111)

"Teen" above disclaimed "burger" for hamburger type sandwiches does not so resemble "Teen Twist" for sandwiches that confusion is likely.—Marriott-Hot Shoppes, Inc. v. Burger Family, Inc. (CCPA) 161 USPQ 227.

Appeal from Trademark Trial and Appeal Board of the Patent Office; 152 USPQ 838.

Trademark opposition No. 44,826 by Marriott-Hot Shoppes, Inc., against Burger Family, Inc., application, Serial No. 195,203, filed June 9, 1964. From decision dismissing opposition, opposer appeals. Affirmed.

BROWNE, SCHUYLER & BEVERIDGE (FRANCIS C. BROWNE and RICHARD G. KLINE of counsel) all of Washington, D. C., for appellant.

MARLIN RALPH SHAFFER, Salt Lake City, Utah, for appellee.

Before WORLEY, Chief Judge, RICH, ALMOND, and BALDWIN, Associate Judges, and MCGUIRE, Judge.*

ALMOND, Judge.

Marriott-Hot Shoppes, Inc., appeals from the decision of the Trademark Trial and Appeal Board, 152 USPQ 838, dismissing its opposition to the application of Burger Family, Inc.,[1] seeking registration on the Principal Register of the mark **TEEN burger** (with "burger" being disclaimed) for "Hamburger Type Sandwiches," asserting use in interstate commerce on or before August 26, 1963.

Appellant alleged below and contends here that the mark for which registration is sought so resembles the mark TEEN allegedly used previously by it for sandwiches as to be likely to cause confusion or mistake or to deceive within the purview of section 2(d) of the Trademark Act of 1946 (15 U.S.C. 1052(d)).

The record discloses that appellant operates a chain of family type drive-in restaurants dispersed throughout this country, and that since 1958 its menus have continuously featured the term TEEN TWIST as a designation for a sandwich on a twisted roll intended to appeal to teenagers. TEEN TWIST has been advertised on occasion through the media of newspapers and radios. It was stipulated that one of appellant's restaurants located in Maryland sold 669 TEEN TWIST sandwiches in the week of July 27, 1964.

The board observed that while appellant had pleaded the use of the term TEEN as a trademark for sandwiches, the record disclosed that the term had been used by it *only* as a part of the mark TEEN TWIST.

The record further discloses that appellee is the owner of subsisting registrations of the marks THE BURGER FAMILY, MAMA BURGER, PAPA BURGER, and BABY BURGER, and that through the facilities of drive-in type restaurants, it has used those marks and the mark TEEN BURGER, in connection with the sale of hamburger sandwiches.

The board held that:

> Since it thus appears that opposer is here the prior user, and the marks of the parties are both applied to sandwiches, this case turns solely on a comparison of the marks.
>
> In this regard, "TEEN TWIST" and "TEEN BURGER" are both suggestive of sandwiches appealing to teenagers. Considering the nature of these marks, and the differences between them when considered in

* Senior Judge, United States District Court for the District of Columbia, sitting by designation.

1 Serial No. 195,203 filed June 9, 1964.

($171,800,000) of Super Soaker products as a base for his calculation of royalties. As Mr. Osborne explained, it would have been reasonable to disregard the first year when sales were low because 1990 was a partial, start-up year and instead to use the primary sales for 1991 to 1993 which were approximately in the amount of $217,900,000. 6/22/94 Tr. at 109-10; exh. D-34. Had Mr. Osborne applied a 5 percent royalty to this new base amount, it would have resulted in lost profits of $10,895,000.[27]

[6] I find that the jury's award of damages was within the parameters of what the evidence showed was the amount of damages sustained by Larami. The jury was free to find that Larami's damage expert was conservative when performing his calculations and that as he explained, the damages sustained by Larami were likely to be in excess of his projections. Moreover, if his testimony was credited by the jury, it provided a firm range of likely harm created by defendants' conduct and the jury's award fell well within the minimum and maximum amounts. In addition, as to his base calculation of royalties, Mr. Osborne stated that one could apply a higher primary sales figure which would increase the damages in excess of $10,000,000. Because this Court cannot go behind the verdict to determine what approach the jury took in deciding the appropriate amount of damages, as long as the jury's award was within the parameters outlined by the *unrebutted* testimony of plaintiff's expert here, the verdict will not be disturbed. *See Van Buskirk v. Carey Canadian Mines, Ltd.*, 760 F.2d 481, 488 (3d Cir. 1984). Accordingly, because I find that the jury's award was within the parameters set out by the testimony of Mr. Osborne, defendants' motions shall be denied. This Court does not find that the jury's damages award was excessive or against the weight of the evidence and certainly, it would not result in a miscarriage of justice, or cry out to be overturned or shock the conscience.[28]

[27] Again, because Larami has already received $685,000 in royalty payments, the lost profits for which it would be entitled would be $10,210,000.

[28] In support of their argument that the verdict was so excessive so as to appear more punitive than compensatory, defendants cite to the alleged comments of juror number three in the hall outside the courtroom after the verdict was rendered. According to defendants, juror number three stated that the jury arrived at the $10,000,000 figure to "send a message." Defendant Amron's motion at 20-21 n.7. It is well settled that the jury's deliberative processes are not legally cognizable, except where subject to "extraneous influences." *Van Buskirk*, 760 F.2d at 488; *Friedman v. F.E. Myers Co.*, 710 F. Supp. 118, 120 (E.D. Pa. 1989); *see also* Fed. R. Evid. 606(b). In the Third Circuit, when matters such as envy, bias, and prejudice result only from intra-jury influences, they will not support the grant of a new trial. Because defendants have not alleged that the jury's verdict was the result of extraneous influences, defendants' argument is ineffectual. For examples of "extraneous influences," see *Government of Virgin Islands v. Gereau*, 523 F.2d 140, 148-50 (3d Cir. 1975), *cert. denied*, 424 U.S. 917 (1976).

III. *CONCLUSION*

For the foregoing reasons, and upon consideration of the motions of defendants Alan Amron and TTMP for judgment as a matter of law and/or a new trial pursuant to Fed. R. Civ. P. 50 and 59, and the response of plaintiff thereto, having found that the evidence at trial was sufficient to sustain the jury's verdict, the motions of defendants shall be denied.

An appropriate Order follows.

ORDER

AND NOW, this 22nd day of March 1995, upon consideration of the motions of defendants Alan Amron and Talk To Me Products, Inc. for judgment as a matter of law pursuant to Fed. R. Civ. P. 50, and/or a new trial pursuant to Fed. R. Civ. P. 59 (Document Nos. 78, 79), and the responses of the plaintiff Larami Corporation thereto, and for the reasons stated in the attached memorandum, it is hereby ORDERED that the motions are DENIED.

This is a final disposition of all claims.

U.S. Court of Appeals
Federal Circuit

In re Chu

No. 95-1038

Decided September 14, 1995

PATENTS

1. Patentability/Validity — Specification — Written description (§115.1103)

Patentability/Validity — Inventorship (§115.13)

Board of Patent Appeals and Interferences erred by holding that applicants are

not entitled to benefit of filing date of existing patent on ground that patent and application lack complete identity of inventorship, since there is overlap in inventive entities of patent and application, which claims to be continuation in part of patent, and since 35 USC 120 plainly allows continuation, divisional, and continuation in part applications to be filed and afforded filing date of parent even though parent and subsequent applications do not share complete identity of inventorship; patent is nevertheless available as prior art against application, since patent does not disclose subject matter of application claims at issue as required by 35 USC 112.

2. Patentability/Validity — Obviousness — In general (§115.0901)

Patentability/Validity — Obviousness — Evidence of (§115.0906)

Board of Patent Appeals and Interferences erred, in upholding obviousness rejection of application claims, by concluding that claims' disclosure was matter of "design choice," and that applicants' evidence and arguments to contrary are not present in specification and are therefore unpersuasive, since board is required to consider totality of record and is not free to disregard evidence and arguments presented by applicants, and since there is no support for proposition that evidence and/or arguments traversing 35 USC 103 rejection must be contained within specification, given that obviousness is determined by totality of record including, in some instances most significantly, evidence and arguments proferred during give-and-take of ex parte patent prosecution.

3. Patentability/Validity — Obviousness — Relevant prior art — Particular inventions (§115.0903.03)

Placement of selective catalytic reduction catalyst within bag retainers in fabric filter house of apparatus used to control emissions from fossil fuel boilers, as taught by claims in application, would not have been matter of "design choice" and therefore obvious, since there is no teaching or suggestion in prior art that would lead one of ordinary skill to modify structure of prior art reference to place SCR catalyst within bag retainer, rather than between two filter bags as disclosed in that reference, and since technical evidence presented by applicants relating to frailty of fabric filters during pulse-jet cleaning clearly militates against conclusion that placement of catalyst in filter baghouse is mere "design choice."

Appeal from the U.S. Patent and Trademark Office, Board of Patent Appeals and Interferences.

Patent application of Paul Chu, William Downs, John B. Doyle and Peter V. Smith, serial no. 07/593,546. From decision of Board of Patent Appeals and Interferences upholding examiner's final rejection of application claims 1, 2, 12 and 14, applicants appeal. Reversed.

Daniel S. Kalka, of McDermott Inc., Barberton, Ohio; Peter C. Michalos, of Notaro & Michalos, New York, N.Y., for appellant.

Nancy J. Linck; Albin F. Drost, deputy solicitor, Scott A. Chambers, associate solicitor, and La Vonda R. De Witt, Patent and Trademark Office, for appellee.

Before Rich, circuit judge, Skelton, senior circuit judge, and Newman, circuit judge.

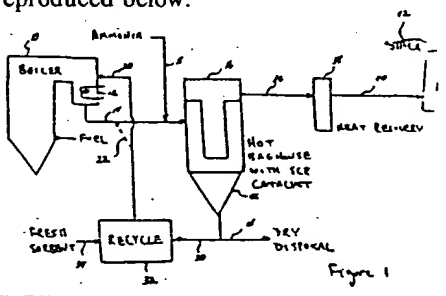
Rich, J.

Paul Chu, William Downs, John B. Doyle, and Peter V. Smith (collectively Chu) appeal the August 9, 1994 decision of the Board of Patent Appeals and Interferences (Board) of the United States Patent and Trademark Office (PTO) affirming the Examiner's final rejection of claims 1, 2, 12, and 14 of patent application Serial No. 07/593,546 (the '546 application).[1] We reverse.

I. *Background*

A. *The Invention*

Chu's invention relates to an apparatus used to control emissions, such as sulfur oxides (SOx), oxides of nitrogen (NOx), and particulates, such as fly ash, from fossil fuel boilers. Fig. 1 of the '546 application is reproduced below.



[1] The rejections of the remaining pending claims were not appealed.

The apparatus includes a fossil fuel fired boiler 10 containing an economizer 12 which receives combustion flue gas therefrom. The flue gas is input via exhaust duct 14 to a fabric filter house or baghouse 16 where it is cleaned, as described in greater detail below. Ammoniacal compounds are also input to the baghouse 16 through duct 14 at point 18. Sorbent is input to the boiler 10 either upstream of the economizer 12 at point 20 or downstream of the economizer 12 at point 22 depending on the particular sorbent chosen. After exiting baghouse 16, the clean flue gas proceeds along duct 36 to heat transfer device 38 which lowers the exit gas temperature. The flue gas then exits along duct 40 to the stack 42 where it passes to the environment.

Fig. 2 of the '546 application is a partial cross section of baghouse 16.

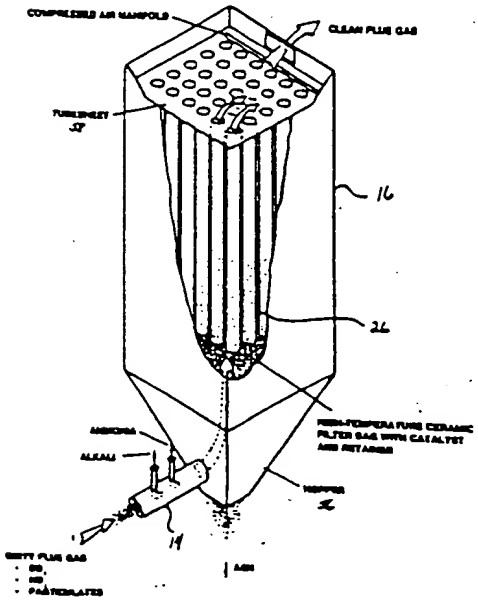


Fig. 2

The baghouse 16 contains suitable fabric filters, such as filter bags 26. A selective catalytic reduction (SCR) catalyst 24, not shown in Fig. 2, is incorporated into the baghouse 16. The SCR catalyst 24 is located in the exhaust plenum of the baghouse 16, or, preferably, inside the filter bags 26.

Figs. 6-9 show alternative embodiments of apparatus for placement of the SCR catalyst 24 within each filter bag 26 of the baghouse 16. Fig. 6 is exemplary and is reproduced below.

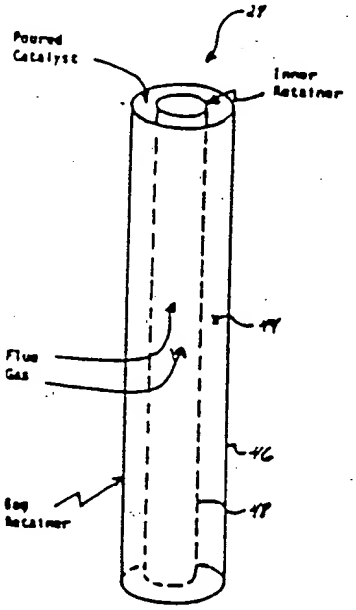


Fig. 6

Fig. 6 shows a catalyst bed 44, or bag retainer, formed of concentric cylinders 46 and 48, each constructed of a porous material such as a perforated metal plate. The filter bag 26 encloses the bag retainer. The SCR catalyst 24 is placed in the space between cylinders 46 and 48. Flue gas flows up through the cylinders 46 and 48, as shown. The particulates and sorbent collect on the filter bags 26 to form filter cakes. To clean the filter bags 26 the '546 application discloses a pulse-jet cleaning system wherein a pulse of high-pressure air is blown into the bag retainer. The surface of each filter bag 26 is thereby cleaned and the filter cakes are discharged into a hopper 56.

Claim 1, the only independent claim at issue, recites:

1. An apparatus for controlling emissions of a fossil fuel fired boiler which produces flue gases containing SOx, NOx, and particulates, comprising:

a flue gas duct constructed so as to carry flue gases from a boiler to a stack for discharge;

a high-temperature pulse jet fabric filter house connected along the flue gas duct between the boiler and the stack constructed so as to remove particulate from the flue gas passing along the flue gas duct, said fabric filter house having a

plurality of fabric filter bags contained therein with each of said fabric filter bags having a bag retainer situated therein;

a selective catalytic reduction catalyst positioned inside the bag retainer of each of said fabric filter bags in said filter house;

means for recovering heat connected along the flue gas duct downstream of said fabric filter house, said heat recovering means constructed so as to be heated by the flue gases in the flue gas duct;

means for injecting an ammoniacal compound into the flue gas duct upstream of said filter house; and

means for injecting sorbent into the flue gas duct upstream of the filter house whereby the sorbent reacts with SOx, the particulates are removed in said fabric filter house, thus protecting the NOx reduction catalyst from fly ash erosion and SOx poisoning.

B. *The Prosecution*

The Examiner rejected claims 1, 2, 12, and 14 under 35 U.S.C. § 103 (1988) as being unpatentable over U.S. Patent No. 4,871,522 issued to Doyle in view of U.S. Patent No. 4,874,586 issued to Szymanski et al. (Szymanski). The Examiner stated that Doyle discloses all elements of claim 1 but "fails to disclose a baghouse filters [sic] having a catalyst located within the filter, and is silent on specific baghouse filter design." The Examiner asserted, however, that Szymanski teaches "a baghouse filter similar to those of the instant claims" and that "[o]ne of ordinary skill in the art would have modified the [Doyle] apparatus to incorporate the baghouse filters of [Szymanski] to facilitate simultaneous removal of sulfur oxides and particulates on the filter and nitrogen oxides through the catalytic bed, disposed within the filters."

In response to the rejection, Chu first argued that the subject application "claims the benefit of the filing date as a continuation-in-part of [the Doyle patent]" such that the use of the Doyle patent "as a reference should be limited only to the new matter claimed in the continuation-in-part application."

As to the merits of the rejection, Chu contended that Doyle teaches placing the SCR catalyst in a heat exchanger downstream from the fabric filter house. Chu also argued that Szymanski "adds nothing to the foregoing reference since it merely teaches . . . incorporating an SCR catalyst into the filter fabric of a filter bag." Chu maintained that neither Doyle nor Szymanski teaches or suggests positioning the SCR catalyst inside the bag retainer of the filter bags as claimed. This feature is significant, according to Chu, because the bag retainers provide support and prevent the filter bags from collapsing during pulse-jet cleaning.

C. *The Board's Decision*

The Board first addressed whether the Doyle patent is available as prior art against the '546 application. The Board concluded that "Doyle is available as a reference for its entire disclosure under 102(e)/103 as to the current application because it is the uncontroverted work of 'another' in this particular case." The Board reasoned that because the Doyle patent and the Chu application have different, albeit overlapping, inventive entities, the Doyle patent is necessarily the work of "another" as defined in 35 U.S.C. § 102(e) (1988) and therefore available as prior art. That Chu claimed the benefit of Doyle's earlier filing date by claiming continuation-in-part (CIP) status under 35 U.S.C. § 120 (1988) was found to be irrelevant, the Board stating that "an attempt to claim CIP status between applications which never shared the same inventive entity is unavailing as a means to overcome" a rejection under § 103.

As to the merits of the § 103 rejection, the Board agreed with the Examiner that Doyle discloses all the elements of independent claim 1 except an SCR catalyst positioned within a bag retainer. The Board found that Szymanski's relatively stiff meshed inner wall 32 is a bag retainer as that term would be understood by one of ordinary skill in the art. Thus, in Szymanski, the catalyst is located between the bag retainer 32 and the bag 30, whereas claim 1, by contrast, requires the catalyst to be "positioned inside the bag retainer."

The Board concluded that the change between situating the catalyst in between the bag and the bag retainer and within the bag retainer is a matter of "design choice" and affirmed the rejection of claim 1. As to dependent claims 2, 4, and 14, the Board held that as "appellants have not separately argued such claims with any reasonable degree of specificity apart from claim 1," those claims "will fall with claim 1." The rejection of claims 2, 4, and 14 was accordingly affirmed.

Chu appealed the Board's decision to this court. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A) (1988).

II. *Availability of Doyle as a Reference*

A. *Standard of Review*

Statutory interpretation is a question of law which we review de novo. *In re*

Kathawala, 9 F.3d 942, 945, 28 USPQ2d 1785, 1786 (Fed. Cir. 1993). In appeals from PTO rejections, the Board's findings are reviewed under the clearly erroneous standard. *In re Caveney*, 761 F.2d 671, 674, 226 USPQ 1, 3 (Fed. Cir. 1985).

B. *Analysis*

The threshold issue in this case is whether the Doyle patent is available as prior art against Chu's claims. Chu maintains that the instant application should be afforded the Doyle patent filing date with respect to "the disclosure of the Doyle application" because the instant application claims to be a CIP of the Doyle patent. According to Chu, affording Chu's application this filing date would remove the Doyle patent as a reference. However, the Board found, and the PTO argues on appeal, that Chu is not entitled to the benefit of the Doyle patent filing date because there is not the same inventive entity between the Doyle patent and the Chu application. We conclude that Doyle is a proper prior art reference, though not for the reasons advanced by the Board.

Section 104(b) of the Patent Law Amendments Act of 1984 struck the phrase "by the same inventor" from 35 U.S.C. § 120 and substituted therefor the phrase "which is filed by an inventor or inventors named in the previously filed application." Patent Law Amendments Act of 1984, Pub. L. No. 98-622, sec. 104(b), § 120, 98 Stat. 3383, 3385.

The legislative history of this amendment clearly explains its purpose.

> Subsection (b) of section 105[2] amends section 120 of the patent law to provide that an application can obtain the benefit of the filing date of an earlier application when not all inventors named in the joint application are the same as named in the earlier application. This permits greater latitude in filing "divisional" applications. For example, if the previously filed application named inventors A and B as the inventors, a later application by either A or B could be filed during the pendency of the previously filed application and claim benefit of the previously filed application.

130 Cong. Rec. 28065, 28071 (1984), H.R. 6286, 98th Cong., 2d Sess. (1984), *reprinted in* 1984 U.S.C.C.A.N. 5827, 5835 (Section-by-Section Analysis: Patent Law Amendments of 1984).

[1] The 1984 amendment to § 120 plainly allows continuation, divisional, and continuation-in-part applications to be filed and afforded the filing date of the parent application even though there is not complete identity of inventorship between the parent and subsequent applications. D. Chisum, *Patents* § 13.07 (1995). Thus, the Board erred in requiring complete identity of inventorship between the Doyle patent and the Chu application in order for Chu to have the benefit of the Doyle patent's filing date. There is overlap in the inventive entities of the Doyle patent and the Chu application, which, after the 1984 amendment, is all that is required in terms of inventorship or "inventive entity" to have the benefit of an earlier filing date. But this does not determine whether Chu is entitled to the Doyle date. There is another requirement.

It is elementary patent law that a patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the later application, as required by 35 U.S.C. § 112. 35 U.S.C. § 120. *Mendenhall v. Cedarapids Inc.*, 5 F.3d 1557, 1566, 28 USPQ2d 1081, 1088-89 (Fed. Cir. 1993) ("A patentee cannot obtain the benefit of the filing date of an earlier application where the claims in issue could not have been made in the earlier application."), *cert. denied*, 114 S. Ct. 1540 (1994); *see also Litton Sys., Inc. v. Whirlpool Corp.*, 728 F.2d 1423, 1438, 221 USPQ 97, 106 (Fed. Cir. 1984) (discussing filing dates of CIP applications).

Thus, Chu is entitled to the benefit of the Doyle patent filing date only if the Doyle patent discloses the subject matter now *claimed* by Chu. This, however, is admitted by Chu not to be the case. In fact, Chu states that "the invention as now claimed[ ] was not described in the [Doyle] patent." Specifically, Chu concedes that "nothing in Doyle suggests that SCR catalyst be placed inside the bag filter." Therefore, independent claim 1, which includes this limitation, and dependent claims 2, 4, and 14, are not supported by the Doyle patent disclosure. Accordingly, Chu cannot obtain the benefit of the Doyle patent filing date for these claims and the Doyle patent was properly relied on as prior art.

III. *The Merits of the Rejection*

A. *Standard of Review*

Obviousness under section 103 is a question of law that we review de novo. *In re Donaldson Co.*, 16 F.3d 1189, 1192, 29

[2] In the Congressional Record, the pertinent section is § 105(b). *See* 130 Cong. Rec. 28066 (1984). The same section, however, is listed as § 104(b) in United States Statutes at Large. *See* 98 Stat. at 3385.

USPQ2d 1845, 1848 (Fed. Cir. 1994) (in banc). What a reference teaches is a question of fact reviewed under the clearly erroneous standard. *In re Beattie*, 974 F.2d 1309, 1311, 24 USPQ2d 1040, 1041 (Fed. Cir. 1992).

B. *Obviousness*

In a proper obviousness determination, "[w]hether the changes from the prior art are 'minor', . . . the changes must be evaluated in terms of the whole invention, including whether the prior art provides any teaching or suggestion to one of ordinary skill in the art to make the changes that would produce the patentee's . . . device." *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 935, 15 USPQ2d 1321, 1324 (Fed. Cir.), *cert. denied*, 498 U.S. 920 (1990). This includes what could be characterized as simple changes, as in *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (Although a prior art device could have been turned upside down, that did not make the modification obvious unless the prior art fairly suggested the desirability of turning the device upside down.).

"[W]here the prior art gives reason or motivation to make the claimed [invention] . . . the burden (and opportunity) then falls on an applicant to rebut that *prima facie* case. Such rebuttal or argument can consist of . . . any other argument or presentation of evidence that is pertinent." *In re Dillon*, 919 F.2d 688, 692-93, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990) (in banc), *cert. denied*, 500 U.S. 904 (1991). After evidence or argument is submitted by the applicant in response to an obviousness rejection, "patentability is determined on the totality of the record, by a preponderance of evidence with due consideration to persuasiveness of the argument." *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *see In re Piasecki*, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787 (Fed. Cir. 1984) ("All evidence on the question of obviousness must be considered, both that supporting and that rebutting the prima facie case.").

C. *Analysis*

During prosecution, Chu proffered multiple reasons why placement of the SCR catalyst within the bag retainer is not merely a matter of "design choice." To support his reasoning, Chu supplied various technical articles discussing fabric filters and the stresses they undergo during pulse-jet cleaning. From this evidence, Chu contended that Szymanski does not "accommodate the frailties of the high temperature fabric" of the filter bag and therefore "one of ordinary skill in the art would not look favorably on the teachings of the Szymanski, et al patent." Accordingly, Chu concluded that one of ordinary skill in the art would not have been led to modify Szymanski from its teaching of situating the catalyst between two filter bags to placing the catalyst within the bag retainer, as claimed.

The Board concluded, however, that placement of the SCR catalyst in the bag retainer was a matter of "design choice" and that Chu's evidence and arguments to the contrary were unpersuasive because Chu's "specification is virtually silent on the matter of any purported advantage to locating the catalyst within the bag retainer" and "does not state that the claimed location of the catalyst 'inside the bag retainer' solves any particular problem or produces any unexpected result."

[2] Because the Board was required to consider the totality of the record, the Board was not free to disregard the evidence and arguments presented by Chu in response to the obviousness rejection. Additionally, the Board erred in apparently requiring Chu's evidence and arguments responsive to the obviousness rejection to be within his specification in order to be considered. To require Chu to include evidence and arguments in the specification regarding whether placement of the SCR catalyst in the bag retainer was a matter of "design choice" would be to require patent applicants to divine the rejections the PTO will proffer when patent applications are filed.

Additionally, the cases the Board relied on do not support its position that evidence and arguments must be found in the specification to be considered in an obviousness determination. In each case, the applicant failed to set forth *any* reasons why the differences between the claimed invention and the prior art would result in a different function or give unexpected results. *In re Rice*, 341 F.2d 309, 144 USPQ 476 (CCPA 1965) ("Appellants have failed to show that the change [in the claimed invention] as compared to [the reference], result in a difference in function or give unexpected results."); *In re Kuhle*, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975) ("Use of such means of electrical connection in lieu of those used in the references solves *no stated problem* and would be an obvious matter of design choice within the skill in the art." (emphasis added) (citations omitted)).

In re Lundberg, 253 F.2d 244, 117 USPQ 190 (CCPA 1958), relied on by the Board, is also unpersuasive. In that case, the applicant argued that its valve was distinguished from the prior art because it could be opened in

either direction. The court found this argument to be unpersuasive because "that advantage is not disclosed in appellant's application" and "the reversible operation now proposed by appellant would require modifications which are not disclosed in the application." *Lundberg*, 253 F.2d at 247, 117 USPQ at 192. None of the arguments presented by Chu would require any change in the construction of the disclosed emission control apparatus.

We have found no cases supporting the position that a patent applicant's evidence and/or arguments traversing a § 103 rejection must be contained within the specification. There is no logical support for such a proposition as well, given that obviousness is determined by the totality of the record including, in some instances most significantly, the evidence and arguments proffered during the give-and-take of ex parte patent prosecution.

[3] From the totality of the record, we hold that placement of the SCR catalyst within the bag retainer would not have been merely a matter of "design choice." First, there is no teaching or suggestion in the prior art that would lead one of ordinary skill in the art to modify the Szymanski structure to place the SCR catalyst within a bag retainer as opposed to between two filter bags as disclosed in Szymanski. Next, Chu's technical evidence relating to the frailty of fabric filters during pulse-jet cleaning clearly counters the assertion that placement of the catalyst in the baghouse is merely a "design choice." Specifically, Chu's evidence regarding the violent "snapping" action during pulse-jet cleaning, the difficulty in stitching compartments including the capacity to withstand high temperatures, and problems encountered from variable path lengths due to settling of the catalyst particles in each compartment militates against a conclusion that placement of the SCR catalyst is merely a "design choice." *See In re Gal*, 980 F.2d 717, 25 USPQ2d 1076 (Fed. Cir. 1992) (finding of "obvious design choice" precluded where the claimed structure and the function it performs are different from the prior art).

IV. *Conclusion*

We therefore conclude that the subject matter of claim 1 would not have been obvious in view of Doyle and Szymanski. The rejection of independent claim 1, and necessarily of dependent claims 2, 4, and 14, is accordingly reversed.

REVERSED

U.S. Court of Appeals
Federal Circuit

Mark I Marketing Corp. v. R.R. Donnelley & Sons Co.

No. 95-1101

Decided September 14, 1995

PATENTS

1. Infringement — Defenses — Prosecution history estoppel (§120.1105)

Patent infringement plaintiff is estopped from asserting infringement of two-plate color printing process by any process that does not involve sequential interposition of color filters in preparation of plates, since prosecution history shows that plaintiff was unsuccessful in obtaining allowance of claims until they were narrowed to require that both first and second printing plates be made by interposing particular combinations of colored filters, and since competitor reviewing prosecution history would therefore reasonably conclude that plaintiff surrendered coverage of process not involving sequential interposition of filters in order to procure issuance of patent.

2. Infringement — Defenses — Prosecution history estoppel (§120.1105)

Prosecution history estoppel is not avoided by failing to respond to rejection and instead meeting substance of rejection by filing narrower continuing application, since prosecution history must be viewed as whole to determine whether and what subject matter was surrendered to procure issuance of patent.

3. Infringement — Doctrine of equivalents — In general (§120.0701)

Infringement — Defenses — Prosecution history estoppel (§120.1105)

Patent for two-plate color printing process is not infringed, under doctrine of equivalents, by accused process, since plaintiff is estopped from asserting infringement by any process that does not involve sequential interposition of color filters in preparation of plates, and since accused process, which employs three light beams simultaneously filtered through red, green and blue filters within scanner, indisputably does not involve sequential interposition of filters.

Particular patents — Chemical — Color Reproduction

4,554,241, Edwards, color reproduction process, summary judgment of non-infringement affirmed.